

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application;

1. (Currently Amended) A video signal-processing device comprising:

quantity of black expansion computing means for computationally determining [[the]] a quantity of black expansion when [[the]] a luminance component of [[the]] an input video signal is not higher than a first luminance level;

regulating means for regulating the quantity of black expansion computationally determined by the quantity of black expansion computing means;

output video signal generating means for generating an output video signal by adding the quantity of black expansion regulated by the regulating means to the luminance component of the input video signal; and

first field integrating means for integrating the luminance component of the output video signal not higher than a second luminance level for a field[[]] of the input video signal, wherein

the regulating means being is adapted to regulate the quantity of black expansion according to the luminance component integrated by the first field integrating means.

2. (Currently Amended) The device according to claim 1,

wherein the quantity of black expansion computing means computes the quantity of black expansion according to [[the]] a difference between the luminance component of the input video signal and the first luminance level.

3. (Currently Amended) The device according to claim 1, further comprising:

comparing means for comparing the luminance component as integrated by the first field integrating means with a predefined convergence level, and, wherein

the regulating means being is adapted to regulate the quantity of black expansion according to [[the]] a result of comparison of the comparing means.

4. (Currently Amended) The device according to claim 3, wherein the regulating means is adapted to increase the quantity of black expansion when the integrated luminance component is smaller than the predefined convergence level, to limit the quantity of black expansion when the integrated luminance component is larger than the convergence level, and to make the quantity of black expansion equal to 0 when the integrated luminance component is equal to the predefined convergence level.

5. (Currently Amended) The device according to claim 3,

wherein the regulating means regulates the quantity of black expansion based on the basis of the a difference between the integrated luminance component and the predefined convergence level.

6. (Currently Amended) The device according to claim 3, wherein the comparing means makes the quantity of black expansion equal to 0 when the integrated luminance component is close to the predefined convergence level.

7. (Currently Amended) The device according to claim 3, further comprising:

gain output means for outputting a feedback gain according to the result of the comparison ~~as transmitted from~~ of the comparing means[;], wherein

the regulating means being is adapted to regulate the quantity of black expansion by multiplying the quantity of black expansion by the feedback gain output from the gain output means.

8. (Currently Amended) The device according to claim 1, further comprising:

black area computing means for computing [[the]] a black area where the luminance component is not higher than the second luminance level in the field of the output video signal

~~as black area;~~, wherein

the regulating means ~~being~~ is adapted to regulate the quantity of black expansion ~~based~~ on ~~the basis of~~ the luminance component integrated by the first field integrating means and the black area determined by the black area computing means.

9. (Currently Amended) The device according to claim 8, wherein the field integrating means comprises first field integratring means and further comprising:

second field integrating means for integrating the luminance component of the output video signal not higher than a third luminance level for a field~~[]~~ of the input video signal, wherein

the black area computing means ~~being~~ is adapted to determine the black area according to ~~[[the]]~~ a difference between the output of the first field integrating means and the output of the second field integrating means.

10. (Original) The device according to claim 1, wherein the regulating means is adapted to regulate the quantity of black expansion on a field by field basis.

11. (Currently Amended) A video signal-processing method comprising the steps of:

computationally determining ~~[[the]]~~ a quantity of black

expansion when [[the]] a luminance component of [[the]] an input video signal is not higher than a first luminance level;

regulating the computationally determined quantity of black expansion;

generating an output video signal by adding the regulated quantity of black expansion to the luminance component of the input video signal;

integrating the luminance component of the output video signal not higher than a second luminance level for a field of the input video signal; and

further regulating the quantity of black expansion according to the integrated luminance component.

12. (Currently Amended) The method according to claim 11, wherein the quantity of black expansion is computed according to [[the]] a difference between the luminance component of the input video signal and the first luminance level.

13. (Currently Amended) The method according to claim 11, further comprising the step of:

comparing the integrated luminance component with a predefined convergence level so as to regulate the quantity of black expansion according to [[the]] a result of comparison of the step of comparing means.

14. (Currently Amended) The method according to claim 13,
wherein further comprising the steps of:

increasing the quantity of black expansion ~~is increased~~ when the integrated luminance component is smaller than the convergence level; and

limiting the quantity of black expansion ~~is limited~~ when the integrated luminance component is larger than the convergence level whereas, wherein the quantity of black expansion is made equal to 0 when the integrated luminance component is equal to the convergence level.

15. (Currently Amended) method according to claim 13,
wherein further comprising the step of regulating the quantity of black expansion ~~is regulated based on the basis of the a~~ difference between the integrated luminance component and the convergence level.

16. (Currently Amended) The method according to claim 13,
wherein further comprising the step of regulating the quantity of black expansion ~~is made to be~~ equal to 0 when the integrated luminance component is close to the convergence level.

17. (Currently Amended) The method according to claim 13,
further comprising the step of:

generating a feedback gain according to the result of the

comparison[[]] in the comparing step, wherein

the quantity of black expansion ~~being is~~ regulated by multiplying the quantity of black expansion by the generated feedback gain.

18. (Currently Amended) The method according to claim 11, further comprising the step of:

computing [[the]] a black area where the luminance component is not higher than the second luminance level in the field of the output video signal as black area, wherein

~~the quantity of black expansion being is regulated based on the basis of~~ the integrated luminance component and the determined black area.

19. (Currently Amended) The method according to claim 18, further comprising the step of:

integrating the luminance component of the output video signal not higher than a third luminance level for a field[[]], wherein

~~the black area being is determined based on the basis of the a difference between the integrated luminance component and the luminance component obtained by integrating the output video signal not higher than the second luminance level for a field.~~

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20. (Original) The method according to claim 11, wherein the quantity of black expansion is regulated on a field by field basis.